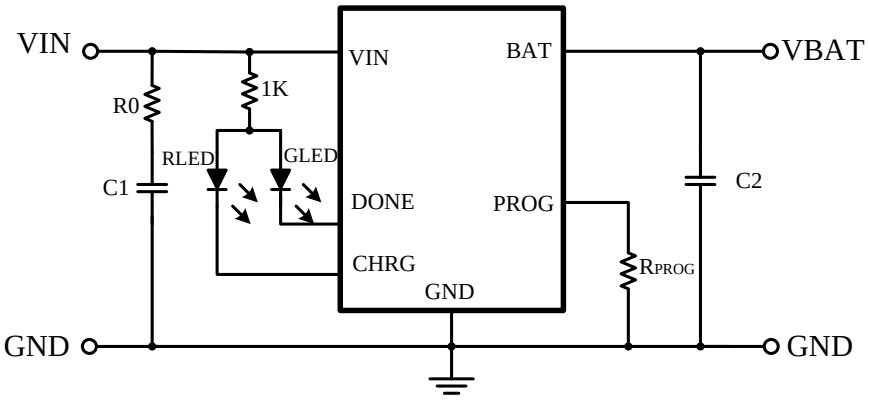
1A USB

■

XT4076 /

●



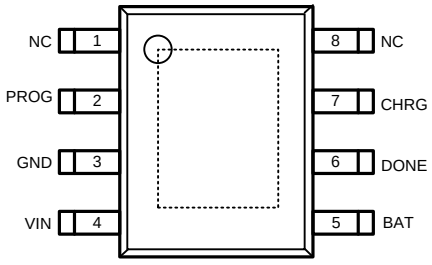
R0 2-5

■

XT4076

		X	
		Y	
		0	4.0
		1	4.1
		2	4.2
		A	00
		B	25
		C	50
		D	75
		S	ESOP8
		R	
		L	

■



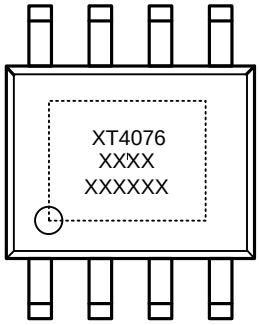
ESOP8
(TOP VIEW)

■

ESOP8	
1	NC
2	PROG
3	GND
4	VIN
5	BAT
6	DONE

■

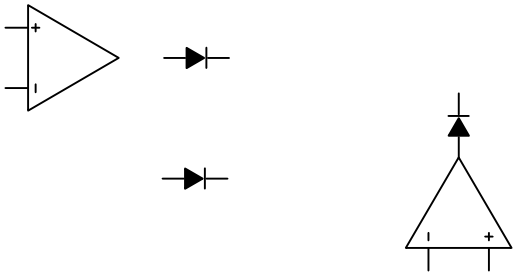
■ **ESOP8**



ESOP8
(TOP VIEW)

■

VIN



■

	V_{cc}	V_{SS}-0.3 V_{SS}+7	V
PROG	Vprog	V_{SS}-0.3 V_{cc}+0.3	
BAT	Vbat	Vss-0.3 6	
DONE	Vdone	V_{SS}-0.3 V_{SS}+7	
CHRG	Vchrg	V_{SS}-0.3 V_{SS}+7	
BAT	Ibat	1500	mA
PROG	Iprog	1500	μA
	Topa	-40 +85	°C
	Tstr	-65 +125	

■

(Ta=25)

						Unit
	Vcc	-	4.25	-	5.5	V
		Charge mode, R_{PROG}=10K	-	200	2000	
	Icc					

		Vcc from high to low	5	30	50	mV
C/10	Iterm	R_{PROG} =10k	8	10	12	mA
		R_{PROG} =2k	40	50	65	mA
PROG	Vprog	R_{PROG} =10k, Current mode	0.93	1.0	1.07	V
DONE	Vdone	Idone=5mA	-	0.35	0.6	μA
CHRG	Vchrg	Ichrg=5mA	-	0.35	0.6	V
	Vrecg	VFLOAT - VRECHRG	-	150	200	mV

■

●

$ICH = \frac{960}{R_{PROG}}$ ICH R_{PROG} PROG

500 $R_{PROG} = \frac{960}{0.5A} = 1.98K\Omega$

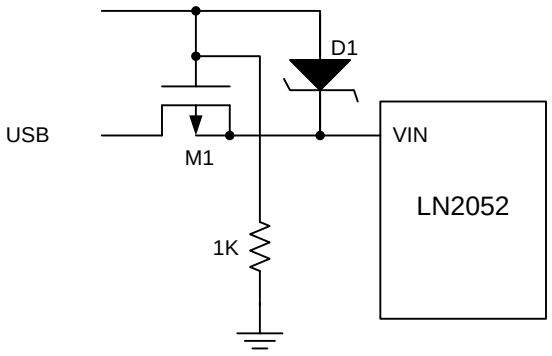
R_{PROG} 1% PROG

$ICH = (V_{PROG} / R_{PROG}) \times 960$ **USB**

XT4076 USB 1 USB

XT4076 M1 P MOSFET M1

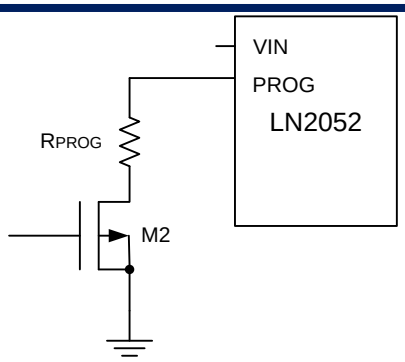
USB D1 USB 1K



1. USB

●

PROG XT4076 2



2. XT4076

●

XT4076 CHRG DONE CHRG

CHRG DONE DONE

0.15 CHRG DONE

Kelvin BAT

BAT BAT 150mv CHRG

BAT 4.7μF 2Hz

CHRG DONE

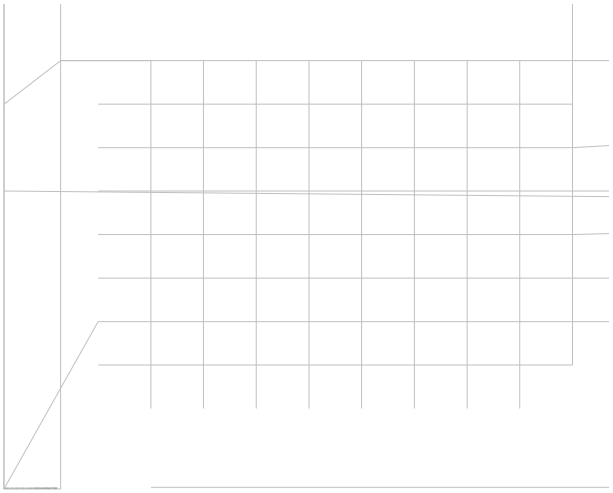
$\overline{\text{CHRG}}$				
$\overline{\text{DONE}}$				

1 CHRG 4.7μF

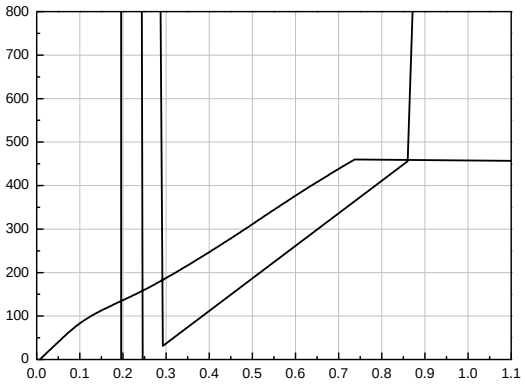
2 PROG Vin<Vbat,Vin<3.8V

■

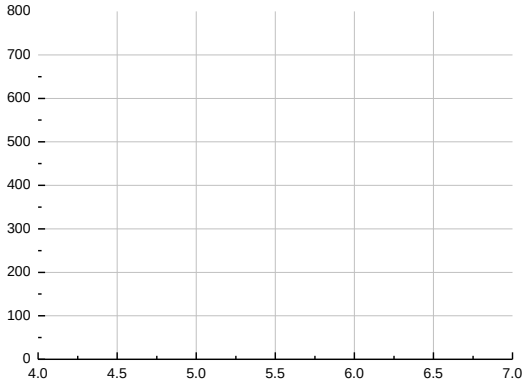
1. VS BAT



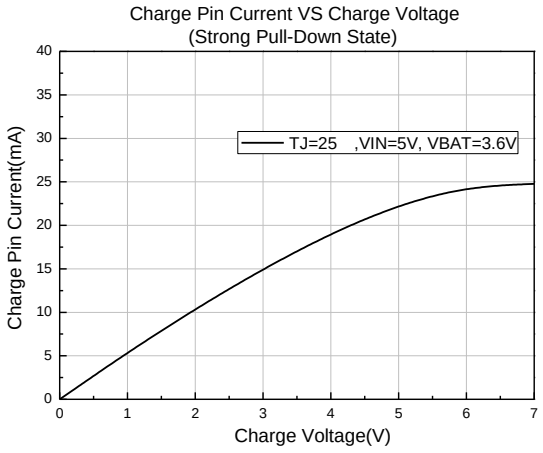
2. VS PROG



3. VS

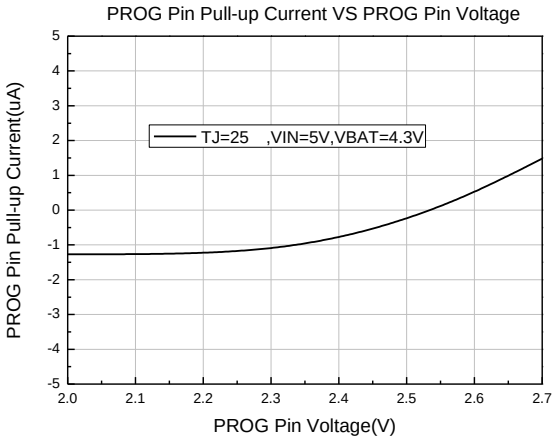


4. CHARGE VS CHARGE

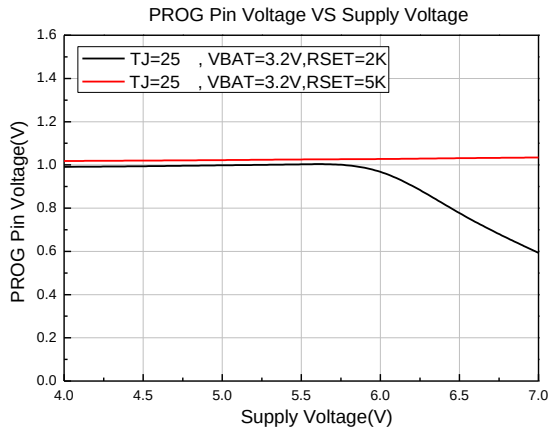


5. CHARGE VS CHARGE

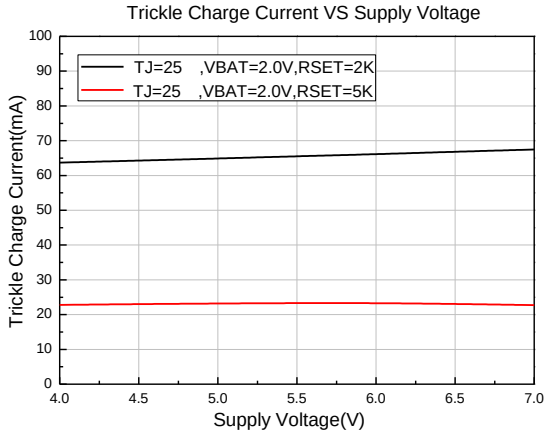
6. PROG VS PROG



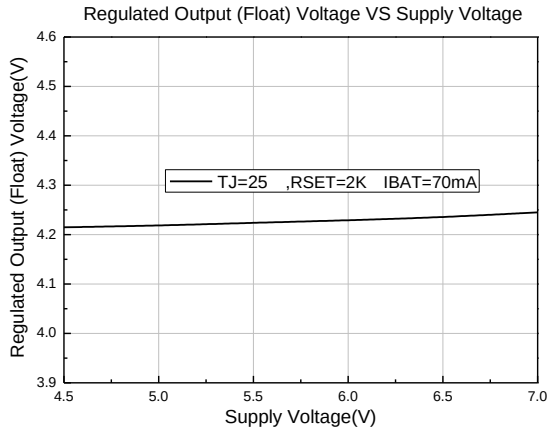
7. PROG VS



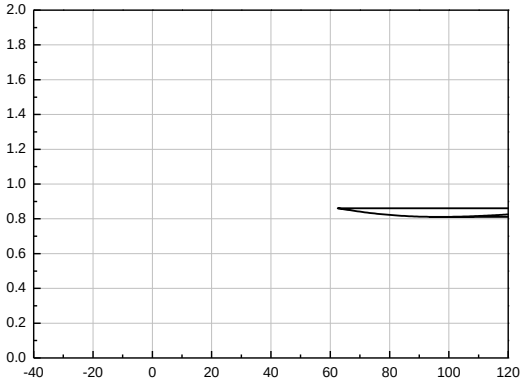
8. VS



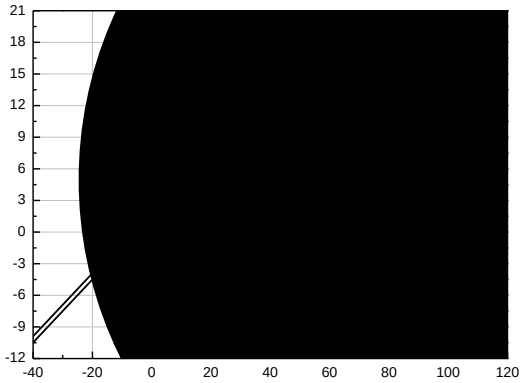
9. VBAT VS



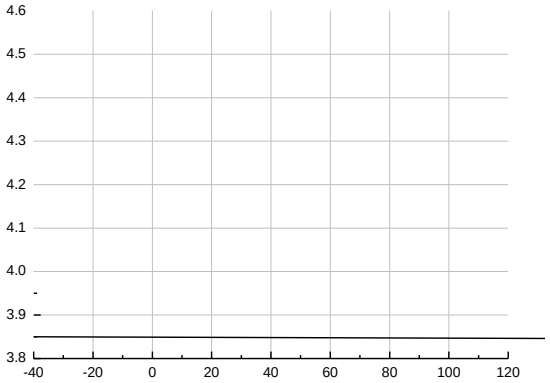
10. PROG VS



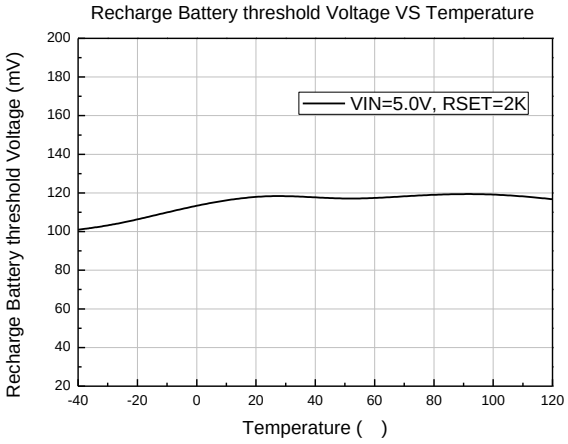
11. PROG VS



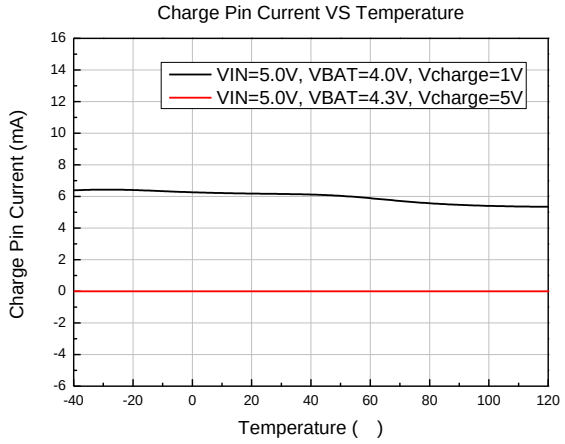
12. BAT



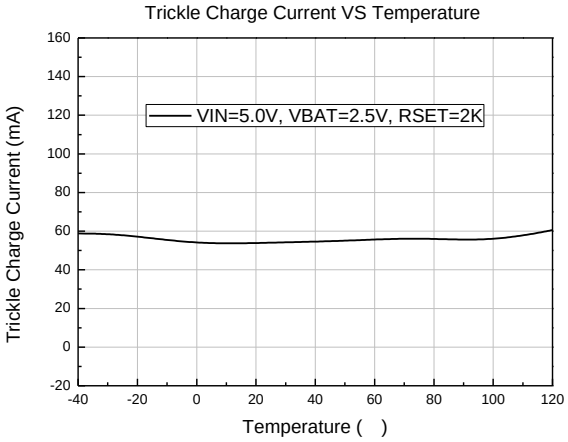
13. VS



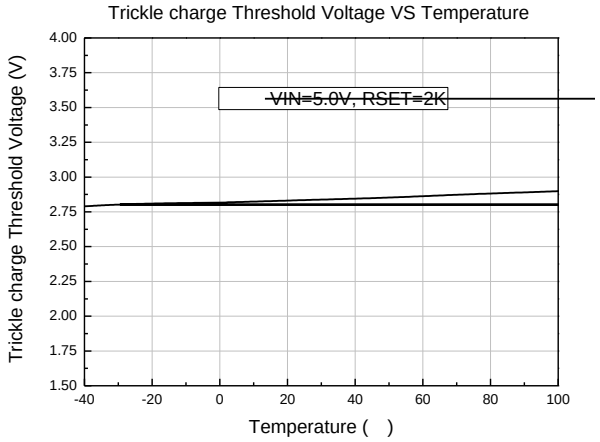
14. CHRG VS



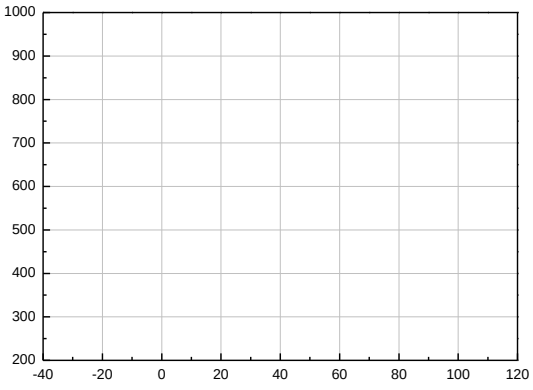
15. VS



16. VS



17.



18. VS

